and in schoolchildren it was atropine (8%). The "probable" and "possible" class of causality in babies were 57.2% and 17.1% while "certain" class was defined just in 24% of reports. In other groups. doctors were more sure in ADRs cause: "certain" class was reported in 50%.

**Conclusion:** This analysis confirms results of previous studies which suggest ADRs as significant issues in pediatrics, which gender specifity, clinical presentations, ADR causing agent and seriousness differ from the same in adults.

**Disclosure of Interest:** O. Matvieiev: Grant/research support from MSD, Rottapharm, Kusum, speaker bureau with: Rottapharm, Zentiva.

## PP229—OBSERVATIONS ON THE OXALIS PERDICARIA (MOLINA) BERTERO IN CHILDREN WITH THE PERSISTENT MALNUTRITION DIARRHEA: RANDOMIZED CONTROLLED CLINICAL TRIAL

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**Introduction:** Elderly people of Bangladesh have a strong belief that *Oxalis perdicaria* (Molina) Bertero as pulp or extract can control loose motion. The mechanism of action on *Oxalis perdicaria* (Molina) Bertero extract is not known but the elderly, especially grandmothers, use *Oxalis perdicaria* (Molina) Bertero extracts for their grandchildren who suffer from the loose motion.

**Patients (or Materials) and Methods:** Evaluate control of motion and fluid loss as affected by intake of *Oxalis perdicaria* (Molina) Bertero extract. In the observations, 29 children aged 1 to 2 years, having >5 loose motions/d were randomly advised to take 60 mL of *Oxalis perdicaria* (Molina) Bertero extract (extracted from 50 leafs with stem). The children were suffering from the persistent malnutrition diarrhea. They were also feed Khichdi made with 300 g of rice, 200 g of vegetables, 2 eggs, 150 g of fish, 150 g of lentils, and 30 mL of soybean oil. The total amount of Khichdi was divided into 3 meals, and after each meal, 60 mL of *Oxalis perdicaria* (Molina) Bertero extract was given to ingest. They were also advised to drink oral saline in between the meals, and if capable, to eat fruits, such as *Aegle marmelos* (L.) Corrêa, *Citrus maxima* (Burm.) Osbeck, *Mangifera indica* L., *Musa acuminata* Colla, and *Psidium guajava* L. The observations were conducted at the multicenter during October 2011 to March 2012. None was admitted to hospital. Urinary excretion and stool of each patient were examined routinely on the first day and fifth day. After 5 days, they were advised to eat normal diets.

**Results:** On the second day, 6 patients showed controlled motion (2–3 motions a day). Eleven cases showed controlled motion on the third day, 9 cases on the fourth day, and 3 cases on the fifth day. Signs of dehydration were absent in 18 cases on the third day, 9 cases on the fourth day, and 2 cases on the fifth day. Motion and dehydration both were controlled within the 5 days of *Oxalis perdicaria* (Molina) Bertero therapy.

**Conclusion:** Treatment of diarrhea with the *Oxalis perdicaria* (Molina) Bertero, a common herb in Bangladesh, is not yet established, but the observations on 29 cases in the lessons showed 100% cure within 5 days. The indigenously available medicines and technologies can prove an asset in the tropical and developing countries of the world. At the same time, developed countries also can be benefited because of safety profile of the plant extracts.

**Disclosure of Interest:** None declared.

## PP230—PATTERN OF PARENTERAL DRUG PRESCRIPTION FOR CHILDREN UNDER THE AGE OF 6 IN TURKEY

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**Introduction:** We aimed to assess parenteral drug (PD) prescription patterns for children under the age of 6 at primary health care centers (PHCC) in Turkey, using some drug use indicators.

**Patients (or Materials) and Methods:** PD prescriptions were recruited using the databases of the year 2010 recorded in the PHCC of 32 provinces in Turkey. One hundred PD prescriptions per month from each of the 32 provinces were analyzed retrospectively. Of the total 38,400 PD prescriptions, 2369 (6.2%) were written out for children aged 0 to 5.

**Results:** PD prescriptions were more often written out for boys (56.8%). When age distribution was analyzed, it was found that PD prescriptions were most often written out for children at age 2 (24.1%), followed by age 1 (23.3%), age 3 (17.9%), age 5 (14.5%), age 4 (13.6%), and age <1 children (6.6%). Number of drugs per prescription was 2.8 (1.2), number of PD per prescription was 1.1 (0.3). PDs constituted 57.8% of the total costs of these prescriptions. PDs were more often written out in winter (29.8%), followed by spring (27.0%), summer (24.5%), and autumn (18.7%). Most frequently prescribed PDs were ceftriaxone (31.6%), followed by benzathine benzylpenicillin (14.3%), cefazoline (8.0%) and ampicillin + sulbactam (7.8%). Most frequent diagnoses on the prescriptions were acute tonsillitis (24.5%), followed by acute bronchitis (20.3%), acute pharyngitis (6.1%), and acute upper respiratory tract infection (3.8%).

**Conclusion:** In small children, PDs were more frequently prescribed for respiratory tract infection, in winter and third-generation cephalosporins were the most frequently prescribed PDs. The overuse of third-generation cephalosporins as revealed in our study represent a major concern for the public health because it could be associated with increased antibiotic resistance.

**Disclosure of Interest:** None declared.

## PP231—ACUTE HUMAN TOXICITY OF THIOPURINES, MYCOPHENOLATE AND SIROLIMUS

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**Introduction:** Literature regarding acute human toxicity of thiopurines and mycophenolate (MMF) is limited to a handful of case reports. There are no published reports of sirolimus (SIR) overdose. The aim of this study was to investigate the circumstances and outcomes of overdoses (ODs) with thiopurines, MMF, and SIR using data reported to a single national poison center.

**Patients (or Materials) and Methods:** A retrospective review was performed of all acute ODs involving thiopurines (azathioprine and 6-mercaptopurine), MMF, and SIR in adults and children (<16 years) reported to the Swiss Toxicological Information Centre (STIC) between 1995 and 2012.

**Results:** Of 152,762 reports to STIC, 55 involved OD with thiopurines (n = 39), MMF (n = 14), or SIR (n = 2). Of these, 32 were with suicidal intent, 19 accidental, and 4 iatrogenic errors. Eleven (31%) thiopurine, 4 (31%) MMF, and 1 (50%) SIR ODs had attributable symptoms. The majority of symptoms were minor, although 1 case of sustained thiopurine OD caused agranulocytosis, 1 case of a 9-fold MMF OD caused biphasic hypotension (possibly reflecting enterohepatic circulation), and 1 case of SIR OD in a child caused tremor, raised liver enzymes, and gastroenteritis. Symptoms were observed in patients taking 1.5 and 2.4 times or greater than their usual dose (or the maximum licensed dose in patients not usually taking medication) for thiopurines and MMF, respectively. Decontamination measures were undertaken in 10 thiopurine ODs (9 activated charcoal, 1 gastric lavage). The OR for the development of symptoms after gastrointestinal decontamination in these ODs was 0.14 (95% CI, 0.01–1.5) compared with cases without decontamination. Charcoal was given primarily to children. The mean age of cases managed with charcoal was 8 (10) versus 30 (15) years for cases managed without ($P < 0.0001$).

**Conclusion:** Acute toxicity with thiopurines appears to only be significant with a prolonged exposure to high drug concentrations. MMF ODs seem to be well tolerated. Physicians should be aware, however, that patients who develop hypotension shortly after oral OD may relapse some hours later. It seems that SIR is highly toxic in young children even at modest degrees of overdose. Gastrointestinal decontamination with activated charcoal appeared to reduce symptom development after overdose of thiopurines. Thiopurine, MMF, and SIR OD patterns, outcomes, and management require continued study and transplant and poisons centers should be encouraged to actively seek follow-up data on the cases with which they are involved.

**Acknowledgement:** C.G and A.C contributed equally.

**Disclosure of Interest:** None declared.

## PP232—ACUTE TOXICITY PROFILE OF PIPAMPERONE IN OVERDOSE: A CONSECUTIVE CASE SERIES

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**Introduction:** Pipamperone (PIP) is a mild to moderately potent butyrophenone neuroleptic. Its mechanism of action is thought to be the antagonism of serotonin 5-HT2A and dopamine D4 receptors. The aim of the study was to analyze the clinical features of PIP poisoning because information on patterns of toxicity of this substance in overdose is scarce and limited to case reports.

**Patients (or Materials) and Methods:** Retrospective consecutive review of acute PIP monointoxications reported by physicians to the STIC between August 1974 and November 2012.

**Results:** Thirty-two adults, 3 teenagers, and 3 children could be included. Mean age of the group with adults and teenagers was 41 years (range, 14–90), and the ingested dose in this group ranged between 60 and 2400 mg (mean, 638). Five (14%) patients remained asymptomatic, 21 (60%) showed minor, 8 (22%) moderate, and 1 severe symptoms according to Poisoning Severity Score. There was no fatality. Minor symptoms occurred after ingestion of 60 to 1200 mg PIP (mean, 578), moderate symptoms after 160 to 2400 mg (mean, 950), and severe symptoms after 1200 mg. Signs and symptoms predominantly involved the central nervous and the cardiovascular systems (**Table**). An ECG was available in 20 patients, and 8 showed a prolonged QTc interval (455–505 ms) after ingestion of 400 to 1600 mg. A previously healthy woman developed a generalized seizure after ingestion of 1600 mg. Coma occurred after intake of 1200 mg in an adult, and 360 mg in a 4.5-year-old child. Two children (2- and 4-year-old) remained asymptomatic after ingestion of 10 and 80 mg, respectively.

Table. Symptoms/signs with classification according to severity (Poisoning Severity Score).

| | Severity | | |
|---|---|---|---|
| Symptom/Sign | Minor n (%) | Moderate n (%) | Severe n (%) |
| Somnolence | 15 (39) | | |
| Coma | | 2 (5.2) | 2 (5.2) |
| Dystonic reactions | 3 (7.9) | 1 (2.6) | |
| Seizures | | 1 (2.6) | |
| Disorientation | | 1 (2.6) | |
| Agitation | 1 (2.6) | 1 (2.6) | |
| Tachycardia | 6 (15.8) | | |
| Hypotension | 5 (13.1) | 1 (2.6) | |
| QTc prolongation | 8 (18.4) | 1 (2.6) | |
| AV block I | | 1 (2.6) | |
| Xerostomia | 3 (7.9) | | |
| Gastrointestinal symptoms | 3 (7.9) | | |
| Urinary retention | | 1 (2.6) | |

**Conclusion:** The severity of poisoning was related to the ingested PIP dose. Overdose was associated mostly with mild to moderate, neurologic and cardiovascular signs/symptoms. There was 1 acute single convulsive episode, which has not been previously described in literature. The remarkable frequency of QTc prolongation deserves particular attention, since a case of torsades de pointes has been previously described.[1] The relevance of this phenomenon could increase in the near future because a fixed combination of low-dose PIP and citalopram, which has also QT prolonging potential, is investigated in a Phase III study. Poisoned patients should be monitored for central nervous system depression, dysrhythmias and QTc prolongation.

**Disclosure of Interest:** None declared.

### Reference

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## PP233—CYP1A ACTIVITY AFTER CHRONIC EXPOSURE TO DIOXINS FROM A WASTE INCINERATOR

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**Introduction:** Inhabitants of Melun and vicinities have been exposed to a waste incinerator (1974–2002) emitting high concentrations of dioxins (226 ng I-TEQ/Nm3) up to 2000-times the maximal recommended values. This constitutes a case of unique and well-identified source of pollution. Dioxin (TCDD) is a well-described CYP1A inducer in vitro but in vivo studies are, however, rare. CYP1A has a role in the activation of some environmental and food-borne carcinogens and metabolic ratio of paraxanthine (17X) and caffeine (1,3,7-trimethylxanthine, 137X) is used as a measure of its activity. The aim of the study was to assess the exposed population through